IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

Inventor(s): David J. Houck et al.
Case: Houck 5-2-1-3 (LCNT/125696)
Examiner: Wu, Jianye

Serial No.: 10/657,864
Filed: 09/09/2003
Group Art Unit: 2462

Confirmation #: 2071

Title: METHOD AND APPARATUS FOR MANAGEMENT OF VOICE-OVER IP COMMUNICATIONS

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APPEAL BRIEF

Appellants submit this Appeal Brief to the Board of Patent Appeals and Interferences on appeal from the decision of the Examiner of Group Art Unit 2462 mailed July 19, 2011, rejecting claims 1-6 and 9-33.

In the event that an extension of time is required for this appeal brief to be considered timely, and a petition therefor does not otherwise accompany this appeal brief, any necessary extension of time is hereby petitioned for.

The **$540** Appeal Brief fee was paid with the filing of Appellants' Appeal Brief filed on August 31, 2009. Appellants do not believe that any additional fees are due. In the event Appellants are incorrect, the Commissioner is authorized to charge any other fees to Deposit Account No. 50-4802/**ALU/125696**.

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Real Party in Interest

The real party in interest is ALCATEL-LUCENT.

Related Appeals and Interferences

Appellants assert that no appeals or interferences are known to Appellants, Appellants' legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

Status of Claims

Claims 1-33 are pending in the application. Claims 1-6 and 9-33 were originally presented in the application. Claims 7-8 were cancelled. Claims 23-33 were added by amendment. Claims 1-6 and 9-22 have been amended. The rejection of claims 1-6 and 9-33 is appealed.

Status of Amendments

All claim amendments have been entered.

Summary of Claimed Subject Matter

Embodiments of the present invention are generally directed to a method and apparatus for determining whether to accept a new call into an IP network.

In one embodiment, a method is provided for determining whether to accept a new call to be routed from a first location to a second location via a network path in an IP network. At the first location, information is obtained, where the information is relevant to the quality of service of voice calls being transmitted from the first location to the second location via the network path. Based on the obtained information, a parameter indicative of a congestion status of the network path from the first location to the second location is calculated. The new call is accepted into the IP network at the first location in the case of the parameter not exceeding an upper threshold.

In one embodiment, an apparatus includes a first gateway for interfacing voice call data from a public switch telephone network to an internet protocol network. The first gateway includes three circuits. The first circuit is for passing voice call data of

voice calls to the internet protocol network. The second circuit is for receiving quality-of-service information associated with voice calls currently being transmitted toward a second gateway via the first circuit. The third circuit is for calculating, based on the received quality-of-service information, a parameter indicative of a congestion status of a network path between the first gateway and the second gateway, and determining, by comparing the parameter to at least one threshold, whether a new voice call is to be accepted into the internet protocol network via the first circuit.

For the convenience of the Board of Patent Appeals and Interferences, Appellants' independent claims 1 and 14 are presented below with citations to various figures and appropriate citations to at least one portion of the specification for elements of the appealed claims.

Claim 1 positively recites (with reference numerals, where applicable, and cites to at least one portion of the specification added):

> 1. (Previously Presented) A method for determining whether to accept a new call to be routed from a first gateway to a second gateway in an IP network, the method comprising the steps of:
>
> obtaining, at the first gateway, information indicative of the quality of service of voice calls being transmitted from the first gateway to the second gateway via a plurality of network paths between the first gateway and the second gateway; (FIG. 8, 804; Pg. 10:1-30).
>
> determining, using at least a portion of said information, a plurality of congestion status parameters indicative of respective congestion statuses of the network paths, each of said network paths being associated with respective first gateway egress interfaces and a second gateway system IP address; and (Pg. 6:18-31).
>
> determining, using at least one of the congestion status parameters, whether to accept the new call into the network at the first gateway for transmission toward the second gateway via one of the network paths. (FIG. 8, 814; Pg. 11:8-15).

Claim 14 positively recites (with reference numerals, where applicable, and cites to at least one portion of the specification added):

> 14. (Previously Presented) Apparatus comprising a first gateway for interfacing voice call data from a public switch telephone network to an Internet Protocol (IP) network, said first gateway comprising:
>
> a first circuit for passing the voice call data of voice calls to the internet protocol network; (Pg. 3:3-7).
>
> a second circuit for receiving quality-of-service information associated with voice calls currently being transmitted toward a second gateway via the first circuit; and (Pg. 3:3-7).
>
> a third circuit for: (Pg. 3:3-7).
>
> calculating, based on the received quality-of-service information, a plurality of congestion status parameters associated with the respective network paths between the first gateway and the second gateway, wherein the congestion status parameters are indicative of respective congestion statuses of the network paths, each of said network paths being associated with respective first gateway egress interfaces and a second gateway system IP address; and (Pg. 6:18-31).
>
> determining, using at least one of the congestion status parameters, whether a new voice call is to be accepted into the IP network via the first circuit for transmission toward the second gateway via one of the network paths. (Pg. 11:8-15).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

I. Claims 1-6 and 9-33 are rejected under 35 U.S.C. §112, ¶1, as failing to comply with the written description requirement.

II. Claims 1, 3, 5, 14-15, 18, 23, 26 and 33 are rejected under 35 U.S.C. §103(a) as being unpatentable over Elliott et al. US 20040022237, hereinafter "Elliott" in view of Szabo US20020003779 A1, hereinafter "Szabo."

(1) Claims 4, 6-10, 19-22, 24-25 and 27-32 are rejected under 35 U.S.C. §103(a) as being unpatentable over Elliot in view of Szabo, further in view of H. Schulrinne et al. IETF RFC 3550 "RTP: A Transport Protocol for Real-Time Applications," July 2003, hereinafter "RFC 3550."

(2) Claims 2 and 13 are rejected under 35 U.S.C. §103(a) as being unpatentable over Elliott in view Szabo, further in view of Watt US Patent number 5781532, hereinafter Watt.

(3) Claims 11-12 are rejected under 35 U.S.C. §103(a) as being unpatentable over Elliott in view of Szabo and Watt, further in view of RFC 3550.

(4) Claims 16-17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Elliott in view of RFC 3550 and Szabo, further in view of Hooper et al. U.S. 20040252686 A1, hereinafter Hooper.

ARGUMENTS

I. Rejection Under 35 U.S.C. §112, ¶1

Claims 1-6 and 9-33 are rejected under 35 U.S.C. §112, ¶1, as failing to comply with the written description requirement. Appellants urge to the contrary.

Specifically, the Examiner asserts that the specification does not provide sufficient support for "each of said network paths being associated with respective first gateway egress interfaces and a second gateway system IP address." The Examiner further states:

> "Note that Appellant stated during telephone interview that the support of this limitation is in page 6, line 18-31, which reads as follows:
>
> Packets traveling to a destination gateway can follow different paths based on the port 206x chosen for the specific RTP flow. The MBCAC algorithm assumes that the selection of a port 206x for an incoming call request is under the control of a call controller in the gateway. Hence, the MBCAC algorithm keeps separate admission policies for the paths from different ports to the same destination gateway. It is also assumed that multiple calls going from a particular port to the same destination gateway follows the same path, i.e., there is no load balancing within the network other than 25 provided by the gateways through the selection of *an egress port.* This assumption can be satisfied if the gateways use the system *IP address of the destination gateway* as opposed to the IP addresses of its ports. In this framework, load balancing is supported by controlling *the egress port at the source gateway* (i.e., first gateway 114). Since each egress port would map into a unique path in the IP network 118, the load from source gateway 114 to a destination gateway (i.e., second gateway 116) can be partitioned into different paths, resulting in load sharing in the network
>
> However, the above cited text does not disclose "first gateway egress interfaces" in the claim language. Note that "first gateway egress interfaces" indicates that more than one egress interfaces may be associated with each path, and the specification does not have the support for this limitation.
>
> Claim 31 recites the limitation "using all of the network congestion parameters". There is insufficient support in the specification for this limitation in the claim. Note that Applicant argues the support is in "on Pg. 9, Lines 13-16 of Applicants' application, which discusses an admission control algorithm to see if there is a path to the second gateway 116 that is not congested. If first gateway 114 is 15 unable to find an uncongested path to second gateway 116 it sends an error message at step 414 to the soft switch 112..." The cited text does not disclose "all of the network congestion parameters".

Appellants respectfully disagree with the Examiner's assertion. According to MPEP §2161.04:

> A description as filed is presumed to be adequate, unless or until sufficient evidence or reasoning to the contrary has been presented by the examiner to rebut the presumption. See, e.g., *In re Marzocchi*, 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA 1971). The examiner, therefore, must have a reasonable basis to challenge the adequacy of the written description. The examiner has the initial burden of presenting by a preponderance of evidence why a person skilled in the art would not recognize in an applicant's disclosure a description of the invention defined by the claims. *Wertheim*, 541 F.2d at 263, 191 USPQ at 97.

I. STATEMENT OF REJECTION REQUIREMENTS

> In rejecting a claim, the examiner must set forth express findings of fact which support the lack of written description conclusion (see MPEP § 2163 for examination guidelines pertaining to the written description requirement). These findings should:
>
> (A) Identify the claim *>limitation(s)< at issue; and
>
> (B) Establish a *prima facie* case by providing reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed. A general allegation of "unpredictability in the art" is not a sufficient reason to support a rejection for lack of adequate written description. A simple statement such as "Applicant has not pointed out where the new (or amended) claim is supported, nor does there appear to be a written description of the claim limitation '____' in the application as filed." may be sufficient where the claim is a new or amended claim, the support for the limitation is not apparent, and applicant has not pointed out where the limitation is supported.

The Examiner was unable to articulate a reasonable basis, because the Examiner's conclusion is not based on the evidence as a whole. For example, the Examiner alleges that the specification is silent on "first gateway egress interfaces;" however, on page 6, beginning at line 27, the specification discloses:

> In this framework, load balancing is supported by controlling the egress port at the source gateway (i.e., first gateway 114). Since each egress port would map into a unique path in the IP network 118, the load from source gateway 114 to a destination gateway (i.e., second gateway 116) can be partitioned into different paths, resulting in load sharing in the network.

In this case, the phrase: "first gateway egress interfaces" is reasonably ascertainable by those skilled in the art.

From the above passages of the specification and the fundamentals of computer network engineering, an artisan of ordinary skill in the art can discern with a reasonable

degree of clarity and precision the meaning of the phrase: "first gateway egress interfaces."

Further, regarding using all of the network congestion parameter, on page 8, beginning at line 2, the specification provides:

> The first gateway 114 consists of, among other things, a plurality of circuit cards interconnected in a manner so as to facilitate the passing of information packets to and from the network 118 as well as make determinations on the level of congestion on pathways in which said information packets are passed.

Next, on page 14, beginning at line 12, the specification further discloses:

> Note that the rules database 306 reflects the congestion status of the network paths from the local gateway to remote gateways. The opposite direction is handled similarly in the remote gateway. When the admission control module 204_1 is initialized, information about the existing interfaces is determined. [emphasis added].

As shown above, "the congestion status of the network paths from the local gateway to remote gateways" encompass using all of the network congestion parameters. Without a reasonable basis for questioning the adequacy of the written description, the rejection must be withdrawn.

As such, Appellants' claims 1-6 and 9-33 are allowable under 35 U.S.C. §112, ¶1. The Examiner is respectfully requested to withdraw the rejection.

II. Rejection Of 1, 3, 5, 14-15, 18, 23, 26 and 33 Under 35 U.S.C. §103(a)

Claims 1, 3, 5, 14-15, 18, 23, 26 and 33 are rejected under 35 U.S.C. §103(a) as being unpatentable over Elliott et al. US 20040022237, hereinafter "Elliott" in view of Szabo US20020003779 A1, hereinafter "Szabo."

A.1. Claim 1.

Claim 1 is rejected under 35 U.S.C. §103(a) as being unpatentable over Elliott et al. in view of Szabo. Appellants respectfully urge to the contrary.

1. The Examiner Failed To Establish A Prima Facie Showing Of Obviousness Because The Combination Of Elliott and Sczabo Fails To Teach Or Suggest All The Claim Elements.

Appellants initially[1] show error in the rejection of claim 1 in that the Examiner failed to establish a factual basis to support the legal conclusion of obviousness[2]. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988).

The Office Action fails to establish a *prima facie* case of obviousness, because the suggested combination of the references does not teach all of the elements of each of the independent claims. According to MPEP §2143, to establish a *prima facie* case of obviousness under §103, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Elliott in view of Szabo, alone or in combination, fail to teach or suggest all elements of Appellants' independent claim 1.

The Examiner acknowledges Elliott's deficiency stating:

> "Elliott does not specifically disclose determining, using at least one of the congestion status parameters, whether to accept the new call into the network at the first gateway for transmission toward the second gateway via one of the network paths, each of said network paths being associated with respective first

[1] In the Response filed on May 2, 2011, Appellants argued that the claims were erroneously rejected.

[2] In rejecting claims under 35 U.S.C. §103, the Examiner bears the initial burden of presenting a prima facie case of obviousness. In re Oetiker, 977 F.2d 1443,1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The burden of coming forward with evidence or argument shifts to the Appellant only if the Examiner's burden is met. Id. To establish a prima facie case of obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. MPEP 2143.03. See also. In re Royka, 490 F.2d 580 (C.C.P.A. 1974). If the Examiner fails to establish a prima facie case, the rejection is improper and will be overturned. In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

gateway egress interfaces and a second gateway system IP address." [See Office Action, page 5].

2) Elliott Fails To Teach Claimed Recitation: Examiner Disregards The Clear Teachings Of The Specification.

Further, the Examiner alleges that Elliott teaches the first and second elements of the element. Specifically, the two elements are:

> "obtaining, at the first gateway, information indicative of the quality of service of voice calls being transmitted from the first gateway to the second gateway via a plurality of network paths between the first gateway and the second gateway;
> determining, using at least a portion of said information, a plurality of congestion status parameters indicative of respective congestion statuses of the network paths, each of said network paths being associated with respective first gateway egress interfaces and a second gateway system IP address;"

The Examiner cites paragraph 0099 in view of Fig. 21B for teaching both claimed elements. The cited passage is reproduced here for ease of reference.

> [0099] FIG. 21B depicts an outage recovery scenario illustrating the occurrence of a fiber cut, latency or packet loss failure in the Data Network;

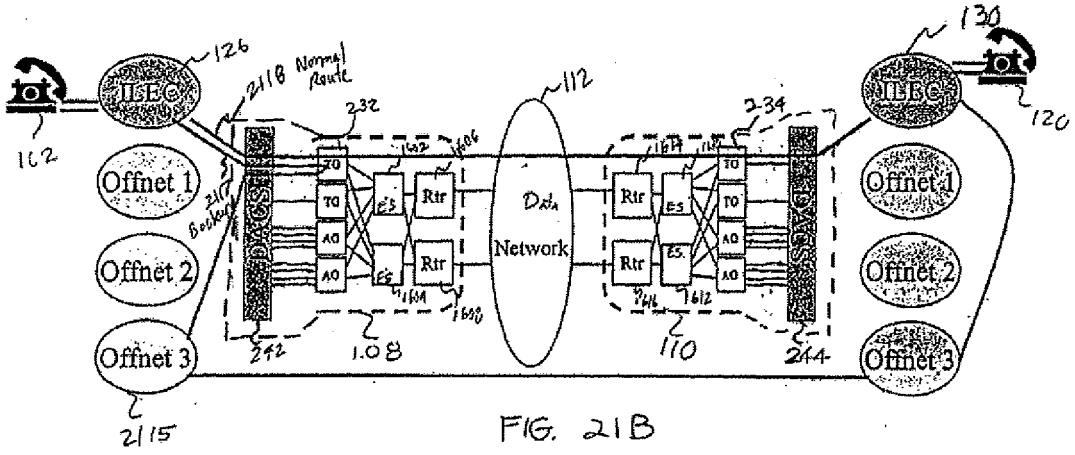

FIG. 21B

As can be seen, FIG. 21B bears no perceptible relationship with the claimed features that Appellants can discern. However, in the Advisory Action, the Examiner contends that Elliott para [0099] recites:

> "the occurrence of a fiber cut, latency or packet loss failure in the data Network. Note that latency and packet loss are parameters related to the congestion status of the network. They are the "status parameters indicative of respective congestion status of the network paths";"

In construing the claimed element, the Examiner failed to properly consider the phrase: "congestion status parameters indicative of respective congestion statuses of the network paths." The MPEP makes clear that the intrinsic record (e.g., the specification) must be consulted to identify which of the different possible definitions is most consistent with the invention's use of the terms. See MPEP §2111.01 (III) quoting *Brookhill-Wilk* 1, 334 F.3d at 1300, 67 USPQ2d at 113 ("Where there are several common meanings for a claim term, the patent disclosure serves to point away from the improper meanings and toward the proper meanings.")

The specification discloses:

> "The destination gateway 116 receives the RTP packets generated by the source gateway 114 (e.g., at port E2) and addressed to itself. For each RTP stream, the receiver measures call quality statistics like packet loss ratio, delay and interarrival jitter for the stream. The measured statistics are sent back to the source gateway 114 periodically in a special field within the RTP packets or in RTCP packets. In one example, these statistics reflect the network conditions for the path following (E2-ER1-Network-ER3-E4). Thus, the MBCAC algorithm utilizes the call quality statistics of this flow to derive the congestion status of the directed path, uniquely defined by the source gateway E2, destination gateway pair." [page 6:32-page 7:7].

Accordingly, the claimed congestion status parameters are packet loss ratio, delay and interarrival jitter. Packet loss ratio is calculated by the equation A/(A+B) where A is the sum of lost and late packets arriving at the particular gateway along the particular path and B is the total number of successfully received packets arriving at the particular gateway along the particular path. (See specification, page 2, line 29).

As evidenced from the above disclosure, the cited portions of Elliott do not seem to support the assertion that the claimed limitation is obvious. The Examiner failed to provide the clear articulation of the reasons why the claimed features would have been obvious as the key to supporting a rejection under 35 U.S.C. §103. In conclusion, there are too many elements unaccounted for and the Examiner does not provide a rationale for

the missing claimed features. Thus, Elliott does not render the claimed limitation obvious. Therefore, the rejection is traversed as discussed above.

Appellants have, thus shown that there are missing claimed features not taught or suggested by the cited reference; and thus, claim 1 has been erroneously rejected

Accordingly, for all of the above reasons, Appellant's independent claim 1 is allowable under 35 U.S.C. §103(a) over Elliott and Szabo, alone or combined.

However, to cure Elliott's deficiencies, the Examiner proceeded to cite Szabo at paragraph 0028 alleging that Szabo bridges the gap between Elliott and the claimed feature. However, the prior art does not support that assertion.

3. *Szabo Fails To Cure Elliott's Deficiencies*

As stated above, the Examiner cites Szabo at paragraph 0028 alleging that Szabo bridges the gap between Elliott and the claimed feature.

Contrary to the Examiner's assertion, Szabo does not disclose:

> "determining, using at least one of the congestion status parameters, whether to accept the new call into the network at the first gateway for transmission toward the second gateway via one of the network paths, each of said network paths being associated with respective first gateway egress interfaces and a second gateway system IP address."

The cited passage is reproduced here for ease of reference.

> [0028] If it is determined in step 205 that the threshold condition is fulfilled, e.g., that the at least one performance indicator value read from the RTCP mechanism does not exceed a pre-set threshold value, the call is accepted in a step 207. The call establishment procedure is then allowed to proceed according to normal routines. On the other hand, if it is determined in step 205 that the threshold condition is not fulfilled, e.g., that at least one performance indicator value exceeds a pre-set threshold value, the IP telephony gateway rejects the call in a step 209. A negative acknowledgement message may then be transmitted back to the subscriber 103 who has initiated the call.

As can be seen, the above passage does not disclose the claimed status congestion parameters determination step. Rather, the disclosure relates to a certain threshold condition. The cited passage specifically and Szabo generally does not seem to disclose or fairly suggest the above claimed feature. Thus, Appellant has shown that there are claimed features not taught or fairly suggested by Szabo. The Examiner has not accounted for the missing features.

Appellants have, thus shown that there are missing claimed features not taught or suggested by the cited reference; and thus, claim 1 has been erroneously rejected

4. *The Examiner Fails To Properly Establish Differences Between The Claimed Subject Matter And Prior Art.*

As shown above, the Examiner failed to properly establish "any differences between the claimed subject matter and the prior art."

Elliott is also silent about this feature of the claimed embodiments. Szabo fails to bridge the gap between Elliott and Appellants claimed embodiments.

The Examiner failed to properly establish "any differences between the claimed subject matter and the prior art," which is one of the Graham factual inquiry or determination. *See KSR Int'l v. Teleflex, Inc.* 550 U.S. 398, 418, 82 U.S.P.Q. 2d 1385, 1396 (2007). Given their proper weight, the factual basis underlying the *Graham* factors inquiry clearly supports a finding of non-obviousness with respect to the claimed embodiments. Accordingly, the Examiner's burden in making factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966) is not met. The Examiner failed to provide the clear articulation of the reasons why the claimed features would have been obvious as the key to supporting a rejection under 35 U.S.C. §103. In conclusion, there are too many elements unaccounted for and the Examiner does not provide a rationale for the missing claimed features.

Therefore, because the Examiner's arguments in support of the §103 rejection fail, a *prima facie* case of obviousness has not been established; and thus, independent claim 1 is allowable over Elliott in view of Szabo under 35 U.S.C. §103.

5. *Rejections On Obviousness Cannot Be Sustained By Mere Conclusory Statements: Examiner's Burden Not Met.*

Further, in an attempt to articulate a motivation, the Examiner makes the following statement:

> "Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply Szabo's teaching above to the gateways disclosed by Elliott for the benefit of ensuring "a transmission path with acceptable transmission quality." ([0008] of Szabo). (See Office Action page 6).

This motivation is deficient because it fails to explain why one of ordinary skill in the art would be motivated to perform the modifications in order to achieve such results. The Examiner's conclusory statement is unaccompanied by evidence or reasoning and is entirely inadequate to support the rejection. The motivation to combine the cited references must exist in foresight not in hindsight.

Further, the motivation to combine Elliott with Szabo fails to have some rational underpinning to support the legal conclusion of obviousness.

Further, such a showing requires 'some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.' *KSR Int'l v. Teleflex, Inc.* 127 S. Ct. 1727 (2007).

Still further, in contradistinction to the Examiner's suggestion an artisan of ordinary skill in the art would not be motivated to combine Elliott with Szabo. This is because the combination does not operate to produce the claimed features and results as articulated above. Accordingly, the Examiner fails to provide the necessary motivation to combine Elliott with Szabo.

Thus, Appellants maintain that the Examiner's supposed motivation for combining Elliott with Szabo, in an attempt to arrive at Appellants' claim 1, is hopelessly deficient. As such, independent claim 1 is allowable under 35 U.S.C. §103(a) over Elliott with Szabo.

Accordingly, Appellants submit that, since the Examiner has failed to provide a motivation for combining Elliott with Szabo, the Examiner has failed to establish a *prima facie* case of obviousness of Appellants' claim 1.

6. *Conclusion.*

Applicants respectfully submit that there is no suggestion in Elliott alone or combined with Szabo that would have resulted in Applicants' invention as provided in independent claim 1. Accordingly, independent claim 1 is not obvious over Elliott in view of Szabo and is allowable under 35 U.S.C. §103.

A.2. Claim 14.

Claim 14 is rejected under 35 U.S.C. §103(a) as being unpatentable over Elliott et al. in view of Szabo. Appellants respectfully urge to the contrary.

As articulated above with respect to claim 1, Elliott alone or in combination with Szabo fails to teach all elements of independent claim 14 as required under 35 U.S.C. §103 for establishing a *prima facie* showing of obviousness. Appellants submit that independent claim 14 recites relevant limitations similar to those recited in independent claim 1 and, as such, independent claim 14 also is patentable under 35 U.S.C. §103(a) over Elliott in combination with Szabo.

A.3. Rejection of claims 3, 5, 15, 18, 23, 26 and 33.

Claims 3, 5, 15, 18, 23, 26 and 33 is rejected under 35 U.S.C. §103(a) as being unpatentable over Elliott et al. in view of Szabo. Appellants respectfully urge to the contrary.

This ground of rejection applies only to dependent claims, and is predicated on the validity of the rejection under 35 U.S.C. §103 given Elliott et al. in view of Szabo as applied to claims 1 and 14.

As articulated above with respect to claims 1 and 14, there are missing claimed features not taught/suggested by the cited references – including "congestion status parameters." (emphasis added). – and thus, dependent claims 3, 5, 15, 18, 23, 26 and 33 have been erroneously rejected under 35 U.S.C. §103(a). The Examiner failed to establish a *prima facie* showing of anticipation.

Therefore, Appellants' claims 3, 5, 15, 18, 23, 26 and 33 are patentable under 35 U.S.C. §103(a) over Elliott et al. in view of Szabo as applied to claim 1.

A.4. Rejection of claims 2, 4, 6-13, 16-17, 19-22, 24-25 and 27-32.

(1) Claims 4, 6-10, 19-22, 24-25 and 27-32 are rejected under 35 U.S.C. §103(a) as being unpatentable over Elliot in view of Szabo, further in view of H. Schulrinne et al. IETF RFC 3550 "RTP: A Transport Protocol for Real-Time Applications," July 2003, hereinafter "RFC 3550."

(2) Claims 2 and 13 are rejected under 35 U.S.C. §103(a) as being unpatentable over Elliott in view Szabo, further in view of Watt US Patent number 5781532, hereinafter Watt.

(3) Claims 11-12 are rejected under 35 U.S.C. §103(a) as being unpatentable over Elliott in view of Szabo and Watt, further in view of RFC 3550.

(4) Claims 16-17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Elliott in view of RFC 3550 and Szabo, further in view of Hooper et al. U.S. 20040252686 A1, hereinafter Hooper. Appellants respectfully urge to the contrary.

Each ground of rejection applies only to dependent claims, and each is predicated on the validity of the rejection under 35 U.S.C. 103 given Elliott in view of Szabo.

As articulated above with respect to claims 1 and 14, there are missing claimed features not taught/suggested by the cited references – including "congestion status parameters." (emphasis added). – and thus, dependent claims 2, 4, 6-13, 16-17, 19-22, 24-25 and 27-32 have been erroneously rejected under 35 U.S.C. §103(a). The Examiner failed to establish a *prima facie* showing of anticipation.

Therefore, Appellants' claims 2, 4, 6-13, 16-17, 19-22, 24-25 and 27-32 are patentable under 35 U.S.C. §103(a) over Elliott in view of Szabo as applied to claims 1 and 14.

Conclusion

Thus, Appellants submit that all of the claims presently in the application are allowable.

For the reasons advanced above, Appellants respectfully urge that the rejection of claims 1-6 and 9-33 is improper. Reversal of the rejection of the Final Office Action is respectfully requested.

Respectfully submitted,

Dated: 8/2/11

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CLAIMS APPENDIX

1. (Previously Presented) A method for determining whether to accept a new call to be routed from a first gateway to a second gateway in an IP network, the method comprising the steps of:

obtaining, at the first gateway, information indicative of the quality of service of voice calls being transmitted from the first gateway to the second gateway via a plurality of network paths between the first gateway and the second gateway;

determining, using at least a portion of said information, a plurality of congestion status parameters indicative of respective congestion statuses of the network paths, each of said network paths being associated with respective first gateway egress interfaces and a second gateway system IP address; and

determining, using at least one of the congestion status parameters, whether to accept the new call into the network at the first gateway for transmission toward the second gateway via one of the network paths.

2. (Previously Presented) The method of claim 23, wherein the new call is accepted into the IP network at a reduced bandwidth in the case of the congestion status parameter associated with the one of the network paths exceeding a lower threshold.

3. (Previously Presented) The method of claim 23, wherein the new call is not accepted into the IP network in the case of the congestion status parameter associated with the one of the network paths exceeding the upper threshold.

4. (Previously Presented) The method of claim 1, wherein the obtained information comprises, for each of at least one of the network paths, a number of sent packets transmitted from the first gateway to the second gateway via the network path, wherein the number of sent packets comprises a number of lost packets, a number of late packets and a number of received packets.

5. (Previously Presented) The method of claim 1, wherein the obtained information comprises, for each of at least one of the network paths, a delay of received packets transmitted from the first gateway to the second gateway via the network path.

6. (Previously Presented) The method of claim 1, wherein the obtained information comprises, for each of at least one of the network paths, a delay variation of received packets transmitted from the first gateway to the second gateway via the network path.

7-8. (cancelled)

9. (Previously Presented) The method of claim 1, wherein, for at least one of the network paths, the congestion status parameter of the network path is identified as a packet lost ratio (PLR).

10. (Previously Presented) The method of claim 9, wherein PLR is defined as

$$PLR = \frac{(\text{lost packets} + \text{late packets})}{(\text{received packets} + \text{lost packets} + \text{late packets})} .$$

11. (Previously Presented) The method of claim 2, wherein bandwidth is reduced for the new call by selecting a first encoder to encode the new voice call information in a bandwidth that is smaller than bandwidths of other calls accepted in the network that are encoded by a second encoder.

12. (Previously Presented) The method of claim 2, wherein the bandwidth of the new call is reduced by increasing the packet size for the new call, wherein the packet size is indicative of a size of a corresponding voice sample.

13. (Previously Presented) The method of claim 2, wherein the bandwidth of the new call is reduced by activating the characteristic of silence suppression for said newly accepted voice call.

14. (Previously Presented) Apparatus comprising a first gateway for interfacing voice call data from a public switch telephone network to an Internet Protocol (IP) network, said first gateway comprising:

a first circuit for passing the voice call data of voice calls to the internet protocol network;

a second circuit for receiving quality-of-service information associated with voice calls currently being transmitted toward a second gateway via the first circuit; and

a third circuit for:

calculating, based on the received quality-of-service information, a plurality of congestion status parameters associated with the respective network paths between the first gateway and the second gateway, wherein the congestion status parameters are indicative of respective congestion statuses of the network paths, each of said network paths being associated with respective first gateway egress interfaces and a second gateway system IP address; and

determining, using at least one of the congestion status parameters, whether a new voice call is to be accepted into the IP network via the first circuit for transmission toward the second gateway via one of the network paths.

15. (Previously Presented) The apparatus of claim 14, wherein said first circuit further comprises one or more Ethernet cards that are connected to the internet protocol network.

16. (Previously Presented) The apparatus of claim 14, wherein said second circuit is at least one strongarm card.

17. (Previously Presented) The apparatus of claim 16, wherein the strongarm card is connected to at least one Ethernet card via a host CPU circuit.

18. (Previously Presented) The apparatus of claim 14, wherein the third circuit determines whether the new voice call is to be accepted into the internet protocol

network via the first circuit by comparing each of the at least one of the congestion status parameters to at least one threshold.

19. (Previously Presented) The apparatus of claim 14, wherein, for at least one of the network paths, the congestion status parameter is a packet loss ratio defined as

$$PLR = \frac{(\text{lost packets} + \text{late packets})}{(\text{received packets} + \text{lost packets} + \text{late packets})}.$$

20. (Previously Presented) The apparatus of claim 19, wherein, for at least one of the network paths, the third circuit compares the packet loss ratio to a lower threshold and if the packet loss ratio is less than the lower threshold, the new voice call is accepted into the internet protocol network.

21. (Previously Presented) The apparatus of claim 19, wherein, for at least one of the network paths, the third circuit compares the packet loss ratio to the lower threshold and an upper threshold, and if lower threshold < packet loss ratio < upper threshold, the new voice call is accepted into the internet protocol network at a reduced bandwidth.

22. (Previously Presented) The apparatus of claim 19, wherein, for at least one of the network paths, the third circuit compares the packet loss ratio to the upper threshold, and if the packet loss ratio is greater than the upper threshold, the new voice call is blocked from entering the internet protocol network.

23. (Previously Presented) The method of claim 1, further comprising:

accepting the new call into the IP network at the first gateway for transmission toward the second gateway via one of the network paths, wherein the new call is accepted into the IP network in the case of the congestion status parameter associated with the one of the network paths not exceeding an upper threshold.

24. (Previously Presented) The method of claim 1, wherein the information indicative of the quality of service of voice calls being transmitted from the first gateway to the

second gateway comprises a plurality of performance reports associated with the voice calls, wherein determining the congestion status parameters of the network paths comprises:

determining, for each of the performance reports, one of the network paths with which the performance report is associated; and

determining, for each of the network paths, the congestion status parameter of the network path using at least a portion of the performance reports determined to be associated with the network path.

25. (Previously Presented) The method of claim 1, wherein the information indicative of the quality of service of voice calls being transmitted from the first gateway to the second gateway comprises a plurality of performance reports associated with the voice calls, wherein determining the congestion status parameters of the network paths comprises:

for each of at least one of the network paths:

selecting only a subset of the performance reports associated with the network path; and

determining the congestion status parameter of the network path using the selected subset of the performance reports associated with the network path.

26. (previously presented) The method of claim 1, wherein determining whether to accept the new call into the network at the first gateway is made using call control logic, wherein the call control logic is updated using the congestion status parameters.

27. (Previously Presented) The method of claim 26, wherein, for each of at least one of the network paths, the call control logic is updated using the congestion status parameter for the network path periodically.

28. (Previously Presented) The method of claim 26, wherein, for each of at least one of the network paths, the call control logic is updated using the congestion status parameter for the network path on an exception reporting basis.

29. (Previously Presented) The method of claim 1, wherein the first gateway comprise a plurality of ports associated with the respective plurality of network paths, wherein determining the congestion status parameters comprises:

for each network path:

for each of at least one voice call being transmitted from the first gateway to the second gateway via the network path, computing a congestion status value associated with the voice call using the obtained information associated with the voice call; and

determining the congestion status parameter of the network path using the at least one congestion status value computed for the network path.

30. (Previously Presented) The method of claim 29, wherein, for each of at least one of the network paths, the congestion status parameter for the network path is determined by selecting the congestion status value computed for the network path that is indicative of the greatest amount of congestion on the network path.

31. (Previously Presented) The method of claim 1, wherein the determination as to whether to accept the new call into the network at the first gateway is performed using all of the network congestion parameters.

32. (Previously Presented) The method of claim 31, further comprising:

accepting the new call into the IP network at the first gateway for transmission toward the second gateway via one of the network paths, wherein the one of the network paths for the new call is the one of the network paths having the associated congestion status parameter indicative of the least amount of congestion.

33. (Previously Presented) The method of claim 1, wherein determining whether to accept the new call into the network at the first gateway comprises:

for each of at least one of the network paths, updating a call admission control policy for the network path based on the congestion status parameter determined for the network path; and

determining whether to accept the new call into the network at the first gateway based on the updated call admission control policy.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.